

Notice of Allowability

Application No.

10/616,623

Examiner

Phallaka Kik

Applicant(s)

LU ET AL.

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 1/17/2006 and interview conducted on 1/26/2006.
2. ☒ The allowed claim(s) is/are 1-9, 15-18, 20, wherein claims 10-14, 18 are canceled and claims 15-18, 20 have been renumbered as 10-14 respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 20060126.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other See Continuation Sheet.

Continuation of Attachment(s) 9. Other: 2 sheets containing Examiner's amendment to pages 8-9 of Applicant's amendment filed on 1/17/2006 .

DETAILED ACTION

1. This Office Action responds to Applicant's amendment filed on 1/17/2006 and interview conducted on 1/26/2006. Claims 1-18,20 are pending, wherein claims 1,3,5-9,15,17,20 have been amended, claim 19 have been cancelled, and claims 10-14 are withdrawn as being directed to non-elected invention with traverse. Claims 1-18,20 have been examined, wherein claims 1-9,15-18,20 are allowed and wherein claims 1-3,5-17,20 are subjected to the following Examiner's Amendment.

Election/Restrictions

2. Applicant's election of group I invention, claims 1-9,15-20 in the reply filed on 1/17/2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

3. This application is in condition for allowance except for the presence of claims 10-14 to an invention non-elected without traverse, as indicated above. Accordingly, claims 10-14 been cancelled, as given in the Examiner's Amendment below.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

EXAMINER'S AMENDMENT

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5. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with David D. Brush (Reg. No. 34,557) on 1/26/2006.

The application has been amended as follows:

In the specification:

--a common-- has been inserted before "one" (page 8, line 12 of Applicant's amendment filed on 1/17/2006--see attached sheet).

--common-- has been inserted before "marked" (page 8, line 15 of Applicant's amendment filed on 1/17/2006--see attached sheet).

--a common-- has been inserted before "one" (page 8, line 26 of Applicant's amendment filed on 1/17/2006--see attached sheet).

--common-- has been inserted before "marked" (page 8, line 29 of Applicant's amendment filed on 1/17/2006--see attached sheet).

In the claims:

As per **claim 1**, --a common-- has been inserted before "one" (line 8);
--common-- has been inserted before "marked" (line 11).

As per **claim 2**, --further-- has been inserted after "process" (line 3).

As per **claim 3**, --common-- has been inserted before "marked" (line 4).

As per **claim 5**, --common-- has been inserted before "marked" (line 4).

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As per **claim 6**, --further-- has been inserted before "comprising" (line 5).

As per **claim 7**, "and" (line 3) has been deleted.

As per **claim 8**, --common-- has been inserted before "marked" (line 4).

As per **claim 9**, --common-- has been inserted before "marked" (line 4).

As per **claims 10-14**, the claims have been cancelled, as being directed to an invention non-elected without traverse as indicated above.

As per **claim 15**, --a common-- has been inserted before "one" (line 12);
--common-- has been inserted before "marked" (line 16).

As per **claim 16**, --further-- has been inserted before "includes" (line 3).

As per **claim 17**, --common-- has been inserted before "marked" (line 5).

As per **claim 20**, --further-- has been inserted before "includes" (line 5);
"code" (line 7) has been replaced with --codes--.

Allowable Subject Matter

6. **Claims 1-9,15-18,20** are allowed.

7. The following is an examiner's statement of reasons for allowance:.

As per **claims 1-9,15-18,20**, the independent **claims 1,15**, from which the respective claims depend, recite the process/computer useable medium for estimating the clock uncertainty between a (data) receiving cell and a (data) launching cell of a net comprising the inventive steps/codes comprising the combinations of steps/codes for back-tracing the first path, marking each (intermediate) cell, back-tracing the second path, and calculating the clock uncertainty, as claimed, which the prior arts made of record failed to teach or suggest. In particular, although the Examiner disagrees with

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Applicant's characterization of **Spyrou** (US Patent No. 5,608,645) which "simply determine the worst case clock delay for each instance" (see Applicant's amendment filed 1/17/2006, page 12, paragraph 6) because "clock uncertainty" is not specifically defined in Applicant's specification and the term as defined in the prior art would also include "clock skew" as being part of or interchangeably used as "clock uncertainty", to which **Spyrou** teaches, the Examiner agrees that **Spyrou** fails to teach or suggest the equivalent marking of the cell(s) having the predetermined characteristic along the path (i.e., first path), or performing the tracing backward (i.e., back-tracing) as claimed, or the calculation of the clock uncertainty based on the common marked cell and the receiving cell as now claimed. In addition, although **Chen et al.** (US Patent No. 5,835,751) teaches back-tracing steps involving the marking of cells having predetermined characteristics (i.e., clock qualifier cells, strobe cells), the Examiner agrees that **Chen et al.** at least fails to teach or suggest the back-tracing of a second path from the launching cell toward the clock source to a common one of the marked cells which was previously performed in the marking step/code having the predetermined characteristic as now claimed, and also fails to teach or suggest the calculation of the clock uncertainty based on delay between the common marked cell and the receiving cell, as now claimed. Accordingly, the Examiner agrees that it would not have been obvious to one of ordinary skilled in the art at the time of the invention to combine the teachings of **Spyrou** and **Chen et al.**, alone or in combination with the prior arts made of record, to arrive at Applicant's claimed invention. Accordingly, the claimed invention is novel and un-obvious over the prior art made of record.

Conclusion

8. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phallaka Kik whose telephone number is 571-272-1895. The examiner can normally be reached on Monday-Thursday, 6:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Chiang can be reached on 571-272-7483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:

Commissioner for Patents

P. O. Box 1450

Alexandria, VA 22313-1450

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or faxed to:

571-273-8300

A handwritten signature in black ink, appearing to read 'Phallaka Kik', with a stylized flourish at the end.

Phallaka Kik
U.S. Patent Examiner
January 28, 2006